BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Amphiregulin/Areg Antibody Picoband®

Catalog Number: A01787-1

About Areg

Amphiregulin, also known as AREG, is a protein that in humans is encoded by the AREG gene. The protein encoded by this gene is a member of the epidermal growth factor (EGF) family. It is an autocrine growth factor as well as a mitogen for astrocytes, Schwann cells, fibroblasts. It is related to epidermal growth factor (EGF) and transforming growth factor alpha (TGF-alpha). This protein interacts with the Epidermal growth factor receptor (EGFR) to promote the growth of normal epithelial cells. It is mapped to 9q32. It has been shown to play a role in immunity, inflammation, tissue repair, and lung and mammary gland development. Homozygous knockout mice for this gene exhibit impaired immune system regulation in the skin and gene expression changes characteristic of chronic liver damage.

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Overview

Product Name	Anti-Amphiregulin/Areg Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Amphiregulin/Areg Antibody Picoband® catalog # A01787-1. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IHC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P31955

Technical Details

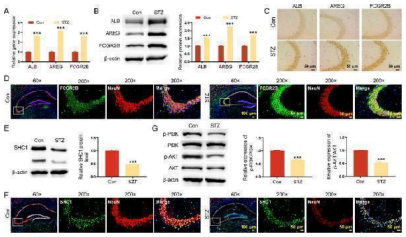
Immunogen	E. coli-derived mouse Amphiregulin recombinant protein (Position:V100-K191).

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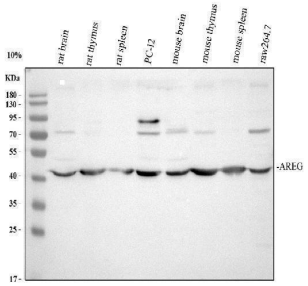
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Flow Cytometry(Fixed), 1-3 ug/1x10^6 cells, Rat ELISA (Cap), 1-5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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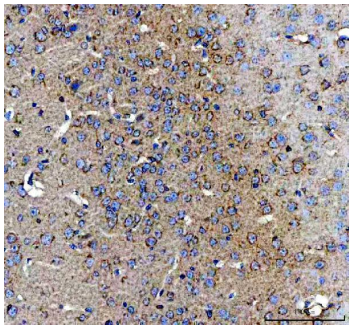
Anti-Amphiregulin/Areg Antibody Picoband® (A01787-1) Images



FCGR2B were up-regulated in hippocampus of DM mice. A qRT-PCR was performed to detect the expression of ALB, AREG and FCGR2B mRNA expression in hippocampus of mice. B Western blot was conducted to detect the ALB, AREG and FCGR2B protein expression in hippocampus of mice. C IHC assay was employed to examine the ALB, AREG and FCGR2B protein expression in hippocampus of mice. D IF staining was utilized to detect the expression of FCGR2B and NeuN in hippocampus of mice. E Western blot was performed to detect the SHC1 protein expression in hippocampus of mice. F IF staining was performed to detect the expression of SHC1 and NeuN in hippocampus of mice. G Western blot was used to detect the p-PI3K and p-AKT protein expression in hippocampus of mice. *** P < 0.001 Full size imageIndex in PubMed under a CC BY license. PMID: 40537751



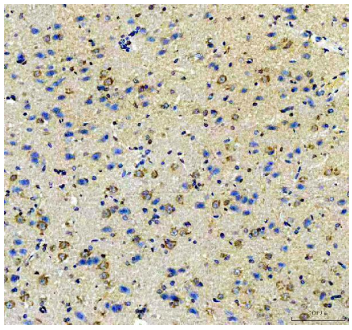
Western blot analysis of Amphiregulin using anti-Amphiregulin antibody (A01787-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rat thymus tissue lysates, Lane 3: rat spleen tissue lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: mouse brain tissue lysates, Lane 6: mouse thymus tissue lysates, Lane 7: mouse spleen tissue lysates, Lane 8: mouse RAW264.7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Amphiregulin antigen affinity purified polyclonal antibody (A01787-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Amphiregulin at approximately 45 kDa. The expected band size for Amphiregulin is at 28 kDa.



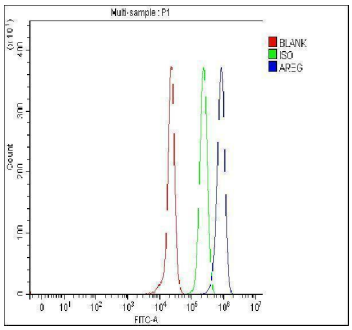
IHC analysis of Amphiregulin using anti-Amphiregulin antibody (A01787-1). Amphiregulin was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Amphiregulin Antibody (A01787-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision

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Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Amphiregulin using anti-Amphiregulin antibody (A01787-1). Amphiregulin was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Amphiregulin Antibody (A01787-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Flow Cytometry analysis of PC-12 cells using anti-Amphiregulin antibody (A01787-1). Overlay histogram showing PC-12 cells stained with A01787-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Amphiregulin Antibody (A01787-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-Amphiregulin/Areg Antibody

For Research Use Only. Not for use in diagnostic procedures.